

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) Solid polymer electrolyte comprising a polymer and a metal salt wherein the salt is optionally attached to the polymer, said polymer comprising at least one methacrylonitrile polymer chosen from:

three-dimensional copolymers of methacrylonitrile and at least one acrylic or methacrylic comonomer, wherein at least one of said acrylic or methacrylic comonomer is a crosslinkable comonomer selected from glycidyl acrylate or glycidyl methacrylate.

Claims 2-4 (Canceled)

5. (Previously Presented) Solid polymer electrolyte according to Claim 38, wherein the acrylic or methacrylic comonomer providing internal plasticization corresponds to the formula $\text{CHX}=\text{CZ}-\text{CO}-\text{V}-\text{Y}$, in which:

- X represents $\text{C}_n\text{H}_{2n+1}$, with $0 \leq n \leq 8$;
- Z represents $\text{C}_n\text{H}_{2n+1}$, with $0 \leq n \leq 8$, or $(\text{CH}_2)_m\text{CN}$, with $0 \leq m \leq 4$;
- V represents O, NH or NR, R represents $\text{C}_n\text{H}_{2n+1}$, with $0 \leq n \leq 8$;

- Y represents a C_nH_{2n+1} radical, with $0 \leq n \leq 8$, a radical carrying an oxirane group $C_nH_{2n}-(CH-CH_2)-O$, with $1 \leq n \leq 4$, or a radical $[(CH_2)_m-O]_pR'$, in which $m = 2, 3$ or 4 , $1 \leq p \leq 50$ and R' represents C_nH_{2n+1} , with $0 \leq n \leq 8$.

Claims 6-13 (Canceled)

14. (Previously Presented) Solid polymer electrolyte according to Claim 39, wherein the said comonomer carries an ionic functional group selected from the group consisting of carboxylate, phosphate, phosphonate, sulfonate and perfluorosulfonate.

Claims 15-37 (Canceled)

38. (Currently Amended) Solid polymer electrolyte according to Claim 1, wherein the methacrylonitrile polymer is a copolymer of methacrylonitrile, a crosslinkable acrylic or methacrylic comonomer selected from glycidyl acrylate or glycidyl methacrylate and an acrylic or methacrylic comonomer providing internal plasticization of the polymer by decreasing its glass transition temperature.

39. (Currently Amended) Solid polymer electrolyte according to Claim 1, wherein the methacrylonitrile polymer is a copolymer of methacrylonitrile, a crosslinkable acrylic or methacrylic comonomer selected from glycidyl acrylate or glycidyl methacrylate and a comonomer which has an ionic functional group in order to obtain a unipolar electrolyte.

40. (Previously Presented) Solid polymer electrolyte according to claim 1, wherein said salt comprises at least one lithium salt chosen from the group consisting of lithium halides, lithium perfluorosulfonate, lithium (trifluoromethylsulfonyl)imide, lithium bis(trifluoromethyl-sulfonyl)methide, lithium tris(trifluoromethylsulfonyl)methide, lithium perchlorate, lithium hexafluoroarsenate, lithium hexafluorophosphate, lithium hexafluoroantimonate and lithium tetrafluoroborate.

41. (Previously Presented) Solid polymer electrolyte according to claim 40, wherein said lithium halides are of the formula LiX where X = Cl, Br, I or I₃.

42. (Currently Amended) Solid polymer electrolyte according to claim 1, which additionally comprises at least ~~on~~ one solvent chosen from propylene carbonate (PC), ethylene carbonate (EC), γ -butyrolactone, dimethoxyethane or dialkyl carbonates.

Claims 43-47 (Canceled)

48. (Previously Presented) Solid polymer electrolyte according to claim 38, wherein the comonomer providing internal plasticization comprises butyl acrylate.

49. (Currently Amended) Solid polymer electrolyte according to Claim 5, wherein the methacrylonitrile polymer is a copolymer of methacrylonitrile, a

crosslinkable acrylic or methacrylic comonomer selected from glycidyl acrylate or glycidyl methacrylate and at least one acrylic comonomer corresponding to the formula $\text{CHX}=\text{CZ}-\text{CO}-\text{V}-\text{Y}$ in which $\text{X} = \text{H}$, $\text{Z} = \text{CH}_3$, $\text{V} = \text{O}$ and $\text{Y} = [(\text{CH}_2)_m-\text{O}]_p\text{R}'$, with $m = 2$, $\text{R}' = \text{H}$ or CH_3 and $1 \leq p \leq 22$.